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ABSTRACT

Linkages between Australia's vocational education and training (VET) and technical and further education (TAFE) sectors and industry were examined through 13 case studies involving a variety of industrial sectors in South Australia, New South Wales, and Victoria. Special attention was paid to the processes established by school clusters to develop relationships with industry. The individual case studies focused on the following topics: scope and nature of the program; strategies for developing formal linkages with industry; training packages; training and assessment; and benefits and concerns. Jointly developed competencies and standards were a cornerstone of the connections between providers of training and industry sectors. Postcompulsory institutions and secondary school providers were also linked with industry in provision of workplace training in the form of work experience and more structured and formal vocational placements. Many schools clustered together to pool and share resources. In postcompulsory institutions (TAFE institutes, private VET providers), the linkages were generally reflected in development and implementation of industry training packages, the composition of course advisory groups, and partnerships between employers in delivery of apprenticeship and traineeship training. The major benefits derived from development of industry linkages for secondary and postsecondary providers were discussed along with concerns and policy implications. (MN)

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Developing industry linkages

Learning from practice

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Josie Misko

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Executive summary

Overview

The Australian vocational education and training (VET) system is based on strong connections between providers of training and industry sectors. This is especially demonstrated through competencies and standards—developed by collaboration between the sectors—that guide the direction of entry-level training at the post-compulsory and secondary school levels.

School linkages

Post-compulsory institutions and secondary school providers will also link with industry in the provision of workplace training in the form of work experience and the more structured and formal vocational placements. To provide extra opportunities for students to undertake a variety of industry programs, schools have clustered together to pool and share resources. Clusters have used these resources to pay the salaries of work placement co-ordinators who have responsibility for establishing industry linkages and locating placements. Where possible these co-ordinators have also established strong linkages with specific industries to provide regular placements for their cluster. In other instances, co-ordinators have the ongoing task of locating ongoing placements, explaining to employers the training required, and establishing guidelines for assessment and reporting. These tasks are labour-intensive and at times there is a concern that much of the work by co-ordinators and teachers of vocational programs in schools is not being acknowledged by adequate funding.

Post-school linkages

In post-compulsory institutions (TAFE institutes, private VET providers) the linkages are generally reflected in the development and implementation of industry training packages, the composition of course advisory groups, and partnerships between employers in the delivery of apprenticeship and traineeship training. The sharing of responsibilities for the development and training of apprentices with training providers delivering the off-the-job components of the training and employers delivering the on-the-job components of the training forms a crucial part of the linkage. In addition, providers are always on the lookout for partnerships with employers to provide training for existing workers.

A number of concerns relating to the training package for a specific area has been identified by a number of providers participating in this study. Generally speaking,

these concerns relate to the ability of school leavers in institutional pathways to follow a program which is more customised to the needs of existing workers. These concerns have been highlighted by providers of training in information technology, travel and tourism and electrical/electronics. In addition there is a concern that there is duplication or overlap between the various qualifications for the travel and tourism industry.

Major benefits

A number of benefits derives from the development of industry linkages for secondary and post-secondary providers. These include:

- training packages which facilitate the recognition and portability of qualifications
- facilitating industry input for off-the-job training
- streamlining and centralising arrangements for work placements
- developing student skills and awareness of suitable occupations and organisations
- improving the public image of employers
- improving teacher awareness of industry developments

Concerns

Although the benefits derived from healthy linkages between providers and industry clearly outweigh the difficulties, there are also a number of concerns. These concerns relate to the training packages themselves and their limitations in terms of meeting the needs of students in institutional pathways—the situation whereby it is possible for trainees to enrol in specialist courses before they have the necessary underpinning or foundation knowledge.

Furthermore, while the training package allows employers to customise the training program to suit their workplace needs, there is a concern that this customisation may not help trainees or apprentices when they move to other workplaces.

Policy implications

Implications for policy relate to:

- improving the resources and funds that are available for the implementation of successful school–industry programs
- promoting a role for industry which is proactive
- reviewing the different training packages to meet the needs of students on different pathways, and to reduce the duplication of qualifications

- ensuring that students learn skills which can be transferred to other situations and future workplaces

Concluding remarks

The findings of this study indicate that the nurturing of linkages between training providers and industry is essential to the provision of adequate and relevant skill development. However, the findings also highlight a number of concerns that need to be addressed.

Introduction

During the last two decades reforms to the Australian VET system have aimed to increase the role played by industry in identifying the competencies which guide the direction of training for existing and entry-level workers. The reforms aimed to assist in the development of a flexible and skilled workforce to help the nation to compete in an increasingly globalised economy.

In this study we examine how schools and post-compulsory institutions, institutes of technical and further education and other registered training organisations (RTOs) develop and maintain linkages with industry in three industry areas: electrical/electronics, hospitality and tourism and information technology.

Formal mechanisms for linking up with industry

There are formal and informal mechanisms which enable training providers to link up with industry. Formal linkages have a direct impact on what happens in the classroom by specifying what must be delivered. Informal mechanisms are often those arrangements established to enable the implementation of certain policies and legislation.

Australian industry has the formal role for identifying competencies and standards that must be delivered by the Australian VET system (ANTA 2001). This role is undertaken by the industry training and advisory bodies (ITABs), a role whereby the skills required to make the industry competitive at home and abroad are identified. In the early 1990s this meant the development of industry competency standards, which formed the basis of national curricula (National Training Board 1992). By the mid-to-late 90s these national curricula were superseded by what were to become known as training packages.

Training packages

Training packages comprise competency standards, assessment guidelines, and qualifications for a particular industry or enterprise (ANTA 1998, 2001). These components must be endorsed by the Australian National Training Authority (ANTA). Training packages may also include non-endorsed components such as learning materials, assessment resources, and professional development materials. Typically, national groups of industry representatives or ITABs are responsible for producing training packages. Input is also sought from government and non-government registered training organisations.

Training packages have replaced national curricula for the delivery of qualifications. By January 2001 there were 64 formally endorsed training packages. Initially national competency standards were developed by the various competency standards bodies (CSBs) and endorsed by the National Training Board (NTB). These national competencies formed the basis of national curricula. National curricula for the different sectors and a national framework for the recognition of training (NFROT) aimed to provide a coherent and nationally consistent approach to the delivery of VET, and to the recognition and portability of qualifications.

In 1994 the Federal government commissioned a review of the implementation of the new reforms (Allen Review 1994). The review found that training providers had been slow to implement the reforms and that the competency standards which had been developed were overly prescriptive. A move to simplify the standards and to make them more relevant to industries and enterprises provided the direction for the development of training packages. Training packages were identified as an effective means of incorporating competency standards, qualifications and ways of measuring skills into one package.

Apart from its leadership role in the development of training packages, industry has also been required to assist in delivering these competencies. This means that it has had to be responsive to requests by training providers (including schools) to provide work experience and work placements for institution-based students. In addition it has had to provide facilities, expertise and time to recognise and/or update the skills of the existing workforce and to prepare new workers for entry-level positions.

Work experience and structured workplacements

Schools prepare students for their secondary school qualifications and provide opportunities for students to experience the world of work either through general work experience or through structured work placements (vocational placements) which are tied to specific VET courses. Sometimes schools and institutions of technical and further education (TAFE) will form partnerships to provide specific training for students. Often this training will count towards secondary school qualifications as well as further VET qualifications.

Where schools have combined as clusters for the purposes of providing a broad range of VET programs for students, the establishment of these vocational programs and placements is generally undertaken by vocational co-ordinators. These co-ordinators liaise closely with vocational teachers within the schools who provide the off-the-job VET training for students.

Although their roles vary, the vocational co-ordinators are charged with developing the networks or links with enterprises for the purposes of placing students in work placements. In addition many play a vital role in making applications for funds, and in developing programs and assessment methods for the vocational placements (Misko 1998).

Almost one in nine secondary schools in Australia was involved in the VET-in-Schools programs in 1998. In 1998 VET-in-Schools enrolments across Australia totalled 116 991. Projections for 1999 were 129 473 (MCEETYA 1998). The

Enterprise and Career Education Foundation (formerly the Australian Student Traineeship Foundation) supports industry programs which involve students in structured workplace learning. Data on enrolments in these programs (McIntyre & Plithers 2001) indicate that there has been an explosion in the numbers of students undertaking these programs since their inception. These figures appear in table 1.

Table 1: Student numbers supported by ASTF, by State: Industry specific structured work placements from 1999 (all ASTF supported work placements pre 1999)

State or Territory	1996	1997	1998	1999	2000	Forecast 2001	% growth in 2001
Australian Capital Territory	426	328	3 349	1 992	1 525	1 700	11.5
New South Wales	6 178	14 174	20 502	16 593	25 807	37 026	43.5
Northern Territory	109	70	468	661	648	698	7.7
Queensland	4 67[illegible]	10 050	10 013	11 281	11 902	15 234	28.0
South Australia	1 667	4 669	4 845	4 125	5 819	7 552	30.0
Tasmania	1 240	1 292	1 817	946	2 460	2 968	20.6
Victoria	2 502	6 533	9 939	8 291	11 483	13 657	18.9
Western Australia	1 158	1 751	2 417	3 324	5 072	6 754	33.2
TOTAL	**17 958**	**38 867**	**53 360**	**47 213**	**64 718**	**85 589**	**32.2**
Non-industry-specific work placements				10 724	15 334	16 000	4.3
All ASTF students	17 958	38 867	53 360	57 937	80 052	101 589	
Annual growth		116%	37%	9%	38%	27%	26%

Source: McIntyre & Pithers (2001)

Group training companies

Group training companies were first established to assist in the employment of apprentices (Misko 1997) and are bodies which are often sponsored by a particular industry to hire apprentices and trainees, and to establish a program of off- and on-the-job training for these trainees. The company is responsible for their wages, work-cover costs, sick pay, holiday pay etc. and for locating enterprises that will host the apprentice or trainee and provide them with on-the-job training and experience in the workplace.

Most recently, group training companies have also worked in conjunction with schools to provide opportunities for students to be involved in part-time traineeships and apprenticeships. This means that they take responsibility for setting up the on-the-job training components while schools take responsibility for the off-the-job training components. At times the companies may also provide some of the off-the-job components as well.

Formal governance requirements

Public and private providers of vocational training are also involved in preparing students for the world of work. Apart from delivering the specific vocational training required by the training packages or national curricula, these institutions may also have in place departments whose role it is to assist students to seek employment; for example, these units may have facilities for providing students with skills in preparing applications, in developing appropriate interview techniques, in seeking career options and in locating possible placements.

Industry representation on governance structures and program advisory groups also ensures that providers maintain industry awareness and keep their practical skills and knowledge current.

Apprenticeships and traineeships

An apprenticeship or traineeship refers to a training arrangement covered by a legal contract between employers and apprentices or trainees (or their guardians) where individuals are indentured to employers for a specific amount of time. Today, as in the past, Australian employers and employees who would like to be involved in an apprenticeship or traineeship arrangement must sign a contract of training or training agreement (formerly called indentures). A contract of training or training agreement specifies the obligations of employers for training delivery as well as the responsibilities of apprentices and trainees to undertake the training that has been agreed to. It also specifies the term of the contract and other responsibilities of employers and apprentices and trainees with respect to how they behave in the workplace (Misko 1997).

Today apprenticeships and traineeships go under the banner of 'new apprenticeships'. As previously, new apprenticeships comprise training programs negotiated between employers, and apprentices and trainees, and are validated by state training authorities. The training program is developed to allow apprentices and trainees to obtain a national qualification under the Australian Qualifications Framework (AQF) through paid work and through structured on-and off-the-job training. In addition it makes allowances for some traineeships to be delivered fully at the workplace. In most States however, employers must work in partnership with RTOs for the development of the training program, and the assessment of competencies. Qualifications are then awarded by the partner RTO.

Apprenticeships in the past were mainly in the traditional trades attached to manufacturing, hospitality, electrical, engineering, printing, hairdressing, building and construction and automotive industries. New apprenticeships today however, can be undertaken in a range of emerging industries as well as in service and business industries. In the past apprentices were engaged in a full-time training program. Now, under new apprenticeships individuals may be involved in new apprenticeships on a part-time basis, and while they are still at school. The contracts of training refer specifically to the qualifications of the relevant training package.

Enterprise training

Enterprises themselves have been heavily involved in preparing workers for the future, either by the provision of work experience and work placement opportunities for secondary school students or for students undertaking VET courses in other institutions. Most recently however, they have also worked in conjunction with registered training organisations to provide what have been called on-the-job traineeships where the great majority of the training (practical and theoretical) takes place on the job. These traineeships for certificate levels I and II are generally of 12 months' duration.

To increase the participation of enterprises in the training of young people for employment, the Federal government has made special monetary incentives available to enterprises. These incentives include reduced trainee wages and special monetary rewards. In return, employers must promise to release trainees for structured training. This means ensuring that time during working hours is to set aside for training.

User choice funding

Under the *User Choice* scheme government monies are allocated to the registered training organisation selected by employers to deliver the training for their apprentices and trainees.

Linkages between training providers and industry

In this study there is a focus on the linkages between training providers and industry for the delivery of entry-level training. The impact of training packages on classroom and on-the-job training and assessment is a special feature of this study. In addition, there is also an examination of the various ways in which individual departments in training institutions and co-ordinators and teachers of vocational programs in schools link with industry to achieve access to work placements and provide work-based training for students.

Schools have clustered together to access funds and to provide access to workplace training for students. These clusters, generally administered by a program co-ordinator, make it possible for schools to pool their resources and offer a variety of programs for students.

A study such as this is able to review the implementation of formal mechanisms for maintaining industry focus in the Australian VET system and comment on the adequacy of these mechanisms.

About the study

The aim of this study was to examine, in the context of entry-level training, the linkages which operate between secondary and post-secondary training providers and industry in three major sectors—the tourism and hospitality, electrical/electronics and information technology industries.

The main rationale for the study is the necessity for understanding the role that industry plays in the delivery of entry-level training. It is also important to identify best practice examples of this role manifested in practical training; also crucial is an examination of the problems experienced by practitioners and administrators in the implementation of particular training reforms.

Collecting the data

Information was collected via face-to-face interviews with department heads in TAFE institutes and with non-government private providers, vocational placement co-ordinators and teachers responsible for vocational programs in secondary schools. The principal of a secondary school also provided information on sponsorship and linkages set up with a major international company for the benefit of all students.

Major questions

Information was collected on the following areas:

- scope and nature of the program
- strategies for developing formal linkages with industry
- training packages
- training and assessment
- benefits and concerns

Case studies

Once the information was collected, case studies for each program or set of programs were developed.

Information from these case studies was used to derive conclusions and policy implications.

Linking up with industry: The case studies

In this section we provide a brief overview of the findings from the case studies conducted in South Australia, New South Wales and Victoria. A special focus was the examination of the processes established by school clusters to develop relationships with industry.

Bayside VET cluster

The Bayside VET cluster is made of 20 local government and non-government schools in suburban Melbourne, Victoria and provides opportunities for students in Years 10, 11 and 12 to complete a nationally accredited certificate under the Australian Qualifications Framework while completing their general high school certificate—the Victorian Certificate of Education (VCE). In addition, opportunities are also available for students to complete formal VCE studies in conjunction with a part-time apprenticeship or traineeship.

These programs comprise both on- and off-the-job training, with the on-the-job training being delivered by employers in workplaces in those programs where the curriculum framework mandates workplace training. The off-the-job component is delivered in schools or by registered training organisations (all local TAFE institutes) working in conjunction with schools.

A management committee comprising representatives of local industries and representatives from schools has responsibility for the cluster. The cluster has undertaken extensive consultation with employers, ITABs and other industry associations in the development of its strategic plan. The Victorian Employers' Association has also been committed to developing linkages with schools in the provision of workplace learning opportunities for students. To this end it has appointed a business adviser whose role it is to encourage industry to participate in the provision of work placement opportunities and part-time apprenticeships or traineeships.

The cluster has appointed a work placement co-ordinator whose major role is to develop and maintain networks with industry in the identification of sufficient work placements for current and future students. Consultations and visits with employers help the co-ordinator to develop a relevant and appropriate training program and evaluate the suitability of establishments.

Employers benefit from the chance to 'nurture' the future skills and knowledge required for their industry or businesses, and are given an opportunity to evaluate the students as possible recruits. In addition they are able to provide staff development opportunities for staff who are involved in the program. The employers also benefit from having a centralised approach to the co-ordination of placements.

Students benefit from the school–industry linkage, determining first-hand whether or not they are attracted to certain occupations, and developing contacts with possible employers.

A major concern for the cluster is the difficulty of attracting sufficient employers to the program to provide placements for 540 students, and subsequently ensuring that employers are able to attend planning meetings on a regular basis.

Eastern Suburbs Compact

The Eastern Suburbs Compact in suburban Sydney acts a link between nine high schools and industry. The main aim of the compact is to centralise and streamline the placement of students in workplaces and arrange suitable training for students who are undertaking dual accredited programs in high schools. A work placement co-ordinator is responsible for developing and maintaining links with employers for the purposes of providing structured learning experiences for students.

Off-the-job training is provided by vocational teachers in schools; on-the-job training is provided by employers in structured work placements. These placements are organised in one or two-weekly blocks. An effort is made to place students in work placements which will recognise and put their particular talents to good use.

Students must complete an application form to be considered for work placements. The major criterion for selection is their suitability for the program, their motivation to be involved, and their willingness to succeed. In addition, teachers are asked to provide information on the students' academic achievement and their motivation.

The workplace co-ordinator works in conjunction with teachers to place students in appropriate work placements and to prepare them for an interview with an employer. The interview with the employer is not a selection interview, but it helps to familiarise the employer with the student and vice versa before the first day of the work placement. Nevertheless, if an employer feels that the student will not be appropriate for the company (for example, too much body piercing, make-up or limited work readiness) the employer may not agree to take the student. However this rarely happens. The interview also serves as an indicator for the co-ordinator that the student will turn up for the placement.

Strong linkages have been set up with establishments like the New South Wales Parliament House which will involve students providing assistance in their end-of-year celebrations. Linkages have also been established with the Airport Hilton, the Holiday Inn at Coogee and the retail chain, Woolworths.

For employers, the benefits of these linkages relate to the opportunity to influence the type of skills being developed for their industries, the provision of professional

development opportunities for their staff and the identification of potential recruits. Students benefit by experiencing what happens in workplaces and learning what is important to employers. In addition, they are able to develop contacts which may assist them when they are looking for jobs in the future.

The benefits for schools in the compact relate to the centralised approach to the co-ordination of work placements, the sharing of resources and facilities with other schools, and the provision of opportunities for training in a variety of industry areas.

JJ Cahill Secondary School

JJ Cahill Secondary School is one of the schools in the Bayside Compact. It is located in a low socio-economic area not far from Sydney's Mascot Airport. Linkages have been set up with DHL Worldwide Express based at the airport.

The major force driving the linkage was the enterprise itself. The Director of DHL had experienced successful relationships between industry and schools in England prior to coming to Australia. Because of his knowledge of the benefits of such relationships, the director of DHL approached the school to set up the linkage. The company provides sports scholarships for four or five students in rugby union and soccer. It pays for uniforms, school fees and professional coaching. The company also provides the school with computers, cabling and netware and computer packages to supplement government-funded resources.

A mentoring program for students in Years 9 and 10 has also been established with DHL. The 10-UP program provides a ten-week mentoring program for students in Year 10; the 9-UP program provides a nine-week mentoring program for students in Year 9. Such programs bring interested staff from the company and students from the school together to form a mentoring relationship. The mentor shares expertise with the student and generally provides advice related to particular career directions. The mentor may also use his/her own personal networks to benefit the student in other ways.

The benefit of this school–industry linkage is the availability of financial and in-kind support for students from low socio-economic backgrounds. The company also has an opportunity to support a school which is training students who may one day become future DHL employees, and to fulfill its community service responsibility. In addition, the linkage allows students with a special talent for sports to develop their skills, and allows students who become part of the 10-UP and 9-UP program to forge contacts which may be of benefit to them in the future.

Although this example is not specifically related to VET it demonstrates how firms can link with schools to ensure better options for students. For DHL, the benefits are that it helps students who may someday come to work for them.

Nastec Solutions

Nastec Solutions is a self-funding, not-for-profit private provider of employment and training services in suburban Adelaide, South Australia. It is registered to provide

training for apprentices and trainees in the engineering trades (including electrical and electronics), Certificates 1 and 2 in Polymer Processing and the Diploma of Information Technology and Retail Operations.

Formal linkages with employers and group training companies have been established to provide entry-level training for apprentices with Nastec delivering the off-the-job training and employers delivering the on-the-job training. Instructors from Nastec Solutions are stationed at the General Motors Holden automotive plant to deliver off-the-job training to maintenance mechanic apprentices. Linkages have also been set up with the Newell group to deliver Certificates 1 and 2 to existing workers. These linkages have been made possible by Nastec's access to User Choice funding.

The provider's relationship with employers hinges on its ability to provide training to meet the needs of the employers. This linkage is especially visible at the training program planning stage where employers sit down with Nastec program co-ordinators to plan out the training program which will suit their enterprises. This usually means selecting appropriate modules from the training package and discussing the type of training that can be delivered on-the-job. Although large companies have a definite idea of the modules they require, small business operators are generally willing for the program co-ordinator to advise them of the appropriate modules.

This planning stage is especially important for co-ordinators in information technology for it allows them to understand the type of software and equipment available to trainees in the workplace and to arrange suitable times for trainees to come off the job for training. Sometimes it means arranging for workplace assessors to visit trainees in the workplace to conduct assessments.

Regency Hotel School

Regency Hotel School is one of the major hotel schools in the country and is located in suburban Adelaide, South Australia. It prepares apprentices and trainees to work in the various divisions of the hospitality and tourism industry. It aims to provide industry with tradespeople and other workers who have the knowledge, skills and attitudes to succeed.

It has had a substantial involvement in the development of the Hospitality Training Package and the national competency-based curriculum that preceded it. Apart from the formal linkage provided by the training package, the Hotel School regularly consults with industry to provide training and assessment services for apprentices and trainees as well as for existing workers and those who require entry-level skills.

Maintaining linkages with industry means that new courses can be introduced to fit a particular need at a particular time. A particular feature is the provision of short courses to prepare individuals for the gaming industry. This includes off-the-job training to prepare operators for the Totaliser Agency Board (TAB)(run by government betting agencies) and cross lotto (run by the government lotteries commission) and for operators to work with gaming machines and other betting games in pubs, clubs and casinos. The Hotel School is now considering introducing training to prepare people for table games like poker, roulette and caribbean stud.

One of their most recent linkages with industry has been the school's involvement with the major catering group for the Sydney Olympics. The school took 500 students and staff (for example, cooks, stewards, front-of-house personnel and supervisors) to Sydney to work at the Millennium Marquee which provided hospitality for 23 different corporate sponsors.

Another important linkage was for the school was working in conjunction with the training arm of the Jackpot Group (a registered training organisation servicing the training needs of 40 hotels) to provide off-the-job training for trainees. In this program each hotel in the group employed two trainees and the Jackpot Group RTO-funded Regency Hotel School to provide some of the off-job training. For example, Regency Hotel School provided all of the modules relating to the food and beverage aspects and a substantial number of the gaming modules. The Jackpot group then provided training in the games specific to their particular hotels.

The Regency Hotel School also provides the in-house training for the Hyatt Hotel and will also be involved in providing the training required for the Adelaide Convention Centre which is now expanding its business to put on about 4 500 staff. Train-the-trainer programs will form a substantial part of the training for this business.

Forging linkages with industry is a role undertaken by all staff at the Regency Hotel School. As well as providing benefits to industry in terms of professional preparation for new entrants, and industry-specific training for existing and entry-level workers, the school helps industry in other ways. It provides assistance with recruitment and is involved in major industry-based committees and groups.

Linkages are also developed when teachers are involved in return-to-industry programs, attend industry conferences and engage in outside catering activities on a commercial basis. These activities ensure that teacher knowledge is kept current and links with industry are maintained.

Hospitality at Northern Sydney Institute of TAFE—Ryde campus

The Hospitality Program at Ryde campus provides training for professional cooks in a variety of establishments, including international hotels, boutique hotels, catering companies, hospitals and other large institutions, nursing homes clubs, prisons and defence forces.

The formal linkage with industry is best demonstrated by the Hospitality Training package. Developed by the industry training advisory board for the hospitality and tourism industry with input from public and private providers, employers, and other industry groups, the package provides the reference point for the competencies that must be delivered and achieved and the assessment guidelines that must be followed.

The majority of the entry-level training provided at Ryde caters for apprentices and trainees. Increasingly, however, training is also provided for individuals who want to obtain the qualifications or units of competence but who are not in apprenticeships or traineeship programs.

The industry linkage is also evident in the sharing of responsibility for training apprentices and trainees whereby the college is responsible for delivering the off-the-job component of the training program (theory and practical workshops), while the workplace supervisor provides on-the-job training and industry experience in the workplace. Where possible employers try to reinforce what students learn at college with tasks in the workplace. The division of responsibility for off- and on-the-job training ensures that students who may not need to employ certain skills or knowledge in their particular workplaces will nevertheless be able to develop these at the college.

An industry reference group for the hospitality program delivered in all institutes also helps to forge relationships with industry. Comprising executive chefs from large and small establishments, academics and food writers, the group provides advice on training, assessment and implementation. It also helps to keep the system aware of current developments in industry.

The major benefit of these linkages is that those who are responsible for implementing training are kept up to date and aware of what is happening in industry. The major benefit of the training package is that it enables training to be delivered which is consistent with predetermined standards, a situation which facilitates the recognition and portability of qualifications between States and between providers.

The major concern of the college is that it cannot standardise or exert significant impact on what the apprentice and trainee experience in the workplace. In addition, it is felt that the training package sometimes lack the 'fibre' of prior curriculum-based courses, and does not provide a broad coverage of areas considered to be important for professional chefs, or current techniques that are coming into vogue.

TAFE New South Wales: Travel and tourism

The aim of this program is to provide entry-level training for individuals hoping to work in the travel and tourism industry. Training can comprise a combination of off- and on-the-job training, or it can be delivered fully on the job. This means that students will either attend college for a day or two per week or remain at the workplace and undertake all their training at the site.

The formal linkage with industry is demonstrated by the Tourism Training Package which outlines competencies and assessment guidelines for qualifications which was jointly developed by the training and advisory board and representatives of public and private RTOs. In addition, the industry has developed what they call a 'green book' which comprises samples of assessment tools.

The linkage between TAFE providers and industry is also manifested in the delivery of on-the-job traineeships. Here providers work in partnership with employers to develop and conduct training programs for the trainee, and deliver qualifications.

Another linkage is provided by the business activities of lecturers outside their training responsibilities, a practice which keeps them up to date with current developments in the industry and tightens the networks built between providers and external organisations.

These linkages assist in building networks and trust, and help providers to obtain current information on the industry in order to customise training to meet these needs. Furthermore, linkages alert industry to the training available in the system.

The training package provides benefits in terms of the national recognition of training and portablility of qualifications. Nevertheless, there is a concern that the training package is more suited to the needs of existing workers and on-the-job trainees than it is to the needs of school leavers who may be following an institutional pathway.

William Angliss Institute of TAFE: Travel and tourism

The Tourism Program at William Angliss Institute of TAFE located in Melbourne, Victoria prepares workers for the travel and tourism industry, a group consisting of travel agents, tour guides, bed and breakfast managers, ticketing personnel, ecotourism guides, tour bus personnel etc. The institute also works in conjunction with universities to deliver tourism and hospitality degrees.

The majority of the students in the program at William Angliss Institute are Year 12 school-leavers. Training is delivered by the public provider arm of the college and its business or commercial arm. The commercial arm provides training for an established fee.

Both programs have on- and off-the-job training components. The on-the-job training for the majority of students who are not in work or undertaking traineeships comprises 10-day work placement blocks in industry. To facilitate these placements the college has established formalised agreements with large travel agencies (Flight Centre, State Tourism Authority, Traveland, Perregrin Adventures, American Express, Thomas Cook and Harvey World Travel).

Conscious of the benefits of strong linkages with industry, the college has committed a substantial effort into developing and maintaining these connections. It meets regularly with the Tourism ITAB to collect information about current developments and 'catch the mood' of the industry. So positive have been its connections with industry that when the government was investigating the possibility of amalgamating the institute with other institutes, the industry was influential in curtailing any amalgamations.

The institute also has strong linkages with the Indigenous sector of the industry. It provides a specialised course focussed on flora, fauna, conservation, map-reading, bush craft, orienteering and Australian Indigenous culture.

The strength and appropriateness of these linkages means that the college can continue to provide training that is relevant and up to date with industry trends. There are however, concerns that industry may have too high an expectation of what can be delivered in entry-level training. Industry expects graduates who can easily fit into their specific businesses; on the other hand, it is felt that industry also needs also to understand that the institute can only provide training that is generic to the industry,

and that it is up to individual businesses to train employees to their particular ways of doing things.

The main advantage of the training package is the flexibility it allows providers in customising training to meet niche skills. However, there are concerns that the training package does not seem to address the need for some students to develop elementary research and study skills. In addition, it is also felt that the package does not cater for students who may have difficulties with literacy and numeracy. There are also concerns that the descriptors used in the training package are too general and that it is difficult to identify AQF levels.

Hospitality at Inner-West TRAC

The Inner-West TRAC (Training in Retail and Commerce) in suburban Sydney comprises a cluster of 12 non-government schools (all Catholic with one exception) who collaborate to provide vocational education and training opportunities for their students. These programs include placements in industry.

The TRAC program which has been operating 1994 began as a program devoted to two main industry areas—retail and commerce. It was subsequently expanded to include other industry areas such as automotive and hospitality. The main aim of the TRAC program is to establish partnerships between schools and industries and to create benefits for both parties. Applying to one- and two-year courses in automotive, business services and hospitality, it uses a competency-based curriculum in line with national standards. It is an industry-recognised tool for employee recruitment and staff training and development. TRAC programs use the work site for the delivery of training.

The manager of the Inner-West TRAC program is responsible for developing the on-the-job and off-the job components of the programs. During the two-year program in hospitality, the students must complete seven work placements, five of which take place in large international hotels and two in a completely different environment (for example, boutique hotels). Students spend a total of between 20 and 28 days in the workplace. Because the hospitality industry does not favour a one-day-a-week approach to work placements, students complete their placements in one week blocks. Some establishments (for example, Planet Hollywood) would like to establish a two-week block placement.

Logbooks which detail the competencies that must be acquired are signed off as soon as they are demonstrated. These competencies are taken from the Hospitality Training Package and the curriculum framework developed by the State Board of Studies.

The manager has committed substantial effort into establishing close linkages with industry to ensure that employers are aware of their responsibilities for training, and that students are able to develop skills which assist them to become employable should they wish to continue in the industry. To make employers aware of the program, the manager of the TRAC program sets up meetings prior to work placements to discuss the skills that must be developed with employers. The manager has also involved employers in selecting the functions to be covered in the work placement program. Employers favoured a cross-functional focus.

To date exclusive arrangements have been established with a large hotel chain, ACCOR which comprises hotels such as the 3-star Ibis, the 4.5-star Grand Mercure Hotel, and the 4-star Novotel. The manager's aim is to make sure that the companies are familiar with the program and will provide work placements on a continuing basis.

Benefits of this arrangement for employers relate to the streamlining of negotiations on link placements with schools: employers have dealings with one person who represents the needs of all 12 schools. Benefits for schools relate to their ability to provide students with a program which includes all the functions of hospitality operations, including housekeeping, food and beverage, and kitchen operations. Students benefit from the opportunities provided for developing workplace skills and making contacts with employers. To date, all of the students who have participated in the program have been able to obtain full- or part-time employment from these programs.

The major concern relates to the different emphasis that is placed on vocational education and work placements in schools themselves. Because not all schools have included vocational education in their mainstream timetables, and because all schools have different events scheduled at different times of the year (retreats, camps, exams) a lot of effort is required to set up placements which do not interfere with other school activities.

Another concern relates to the fact that not all employers are qualified to assess work placements. This means that the manager has to arrange for workplace assessors to visit students in the workplace and conduct assessments.

Electrical/electronics at RMIT University (TAFE division)

The electronic technologies program at RMIT in Melbourne, Victoria provides training in telecommunications, computer systems, megatronics and traditional electronics. Courses are offered in the at the AQF certificate II, AQF certificate III, AQF certificate IV, AQF diploma and AQF advanced diploma levels.

The program comprises both on- and off-the-job training, with on-the-job training for apprentices and trainees being delivered by workplace supervisors, and off-the-job training being delivered by the institute. This practice represents one of the traditional linkages between RMIT and the industry it serves. For students in the institutional pathway, the on-the-job component generally comprises blocks of time spent in work experience. Where sufficient placements are not available, students develop on-the-job skills in simulated environments.

The institute has established an industry advisory committee which meets regularly to discuss industry-specific training and the types of courses that can be offered on a fee-for-service basis.

The training packages (electronics, telecommunications) provide one of the primary mechanisms for enhancing the linkages between training and the electronics industry. It is generally felt that that the implementation of the training packages is providing

straightforward training for entry-level and experienced workers in small enterprises and those who are working in telecommunications companies like Telstra and Optus. However, it is more difficult to apply to students (school-leavers) who are not in a workplace and are following an institutional pathway, and those who are wishing to articulate into degree courses.

Close linkages with industry are also established when RMIT provides enterprises with customised training to meet current and future needs. RMIT has provided short courses for the Australian Class Industries (ACI) in the areas of network systems, cabling systems, commercial design and the manufacturing for prototypes. In addition, the institute has helped the company to undertake competency audits of both entry-level and experienced workers and to develop a skills matrix for the plant. This matrix aligns skills to competency standards described in the training package. A curriculum has been developed based on this alignment. The college is also working with the company to develop individual training plans for each worker which include on-site assessments. There are now 24 electrical workers, 16 mechanical and glass workers who are involved in the program.

The institute also has linkages with the Gippsland Group Training scheme which employs between 60 and 70 apprentices in the electrical area and places these apprentices with local employers for the on-the-job component of their training. The institute is now considering employing a person full-time to conduct on-site assessments.

At RMIT University, it is believed that partnerships with industry are crucial for providing training that meets the needs of the industry. In addition, these partnerships allow staff to keep up to date with current developments, and employers to recruit staff.

Staff members are encouraged to carry out consultation work or to carry out industry-based training. This involvement is considered to be far more beneficial than return-to-industry programs where teachers just observe what is going on rather than being involved in the real work of the company.

The institute is also collaborating with Telstra and Optus to provide training which leads to qualifications and is conducting practical skills courses for the Technical Training Institute for the Emirates Armed Forces.

Electrical/electronics at Box Hill Institute of TAFE

Box Hill Institute of TAFE is one of the largest TAFE institutes in Victoria. It encompasses six main campuses which accommodate over 28 000 students from Australia and overseas. The institute also has extended campus agreements with 28 secondary schools.

Box Hill Institute offers courses in the electronics technologies discipline at AQF certificate I, AQF certificate II, AQF certificate IV and AQF diploma levels. The duration of courses at the certificate levels is usually one semester full-time, while courses at the diploma level are usually of two-years duration for Year 12 completers and two-and-a-half years duration for students who have only completed Year 11.

Depending on the level of qualification completed, electronics graduates can work in the sales and support division of electronic and computer industries. Graduates could also work in the manufacturing, telecommunications and micro-processor industries.

Prior to the development and implementation of the industry training packages, industry representatives were invited to curriculum meetings where they were asked to provide an industry perspective. However, the perspective that tended to be presented was that of large business since they were businesses more likely to afford the time and cost of providing representation. Moreover, it was often difficult to ensure adequate and relevant industry representation because the industry sector served is so diverse that there is no one framework which can meet the needs of all enterprises.

The training package developed by industry has enabled the conjunction of these different views and forms a major mechanism for ensuring a link between industry needs and what happens in training. Industry wanted competent workers with the necessary underpinning knowledge to handle contingencies. The training package allows for the development of these workplace skills.

Box Hill has been able to respond to industry needs by providing training opportunities for telecommunications companies. Vision Stream is a company involved in installing fibre optic cables. To enable it to win contracts from other major providers (Optus and Telstra), the company has instituted arrangements with Box Hill TAFE to enable their technicians to receive the appropriate training, recognition of current competency and prior learning and qualifications. Thus, when tendering for work from these major telecommunications companies, they can claim that the technicians who will be carrying out the work have nationally recognised qualifications.

Teachers at the institute are also expected to maintain linkages with industry on an individual and collective basis. Often graduates of Box Hill programs who have their own companies or are in management positions are called on to share their expertise or provide work placements for students. Because Box Hill is one of the largest institutes in Victoria and has been teaching electronics since the 1970s, a high proportion of managers in the industry are former Box Hill graduates.

As well as ensuring that teachers develop, renew and maintain networks with industry through informal contacts, the institute also provides opportunities for teachers to update their skills and knowledge through return-to-industry programs. Box Hill teachers have been involved with technical software development through the Jindalee Operational Radar Network (JORN) program. Teachers are also involved in their own part-time commercial activities. This also serves to link the institute with the industry it serves.

Business information technology at RMIT (TAFE division)

The business faculty of RMIT is the largest business school in Australia, with over 16 000 students throughout Australia and the Asia-Pacific region. The school provides

training for Certificate 2, 3, and 4 and the Diploma and Advanced Diploma in Information Technology.

The primary aims of the course are to develop basic skills and knowledge of:

- business information technology
- information processing
- business IT practice and communications

The program also aims to develop specialised knowledge and skills in the practical application of information technology in the fields of network performance and operation, database technology, application development and business information systems.

Students in the institutional pathway are expected to undertake a set number of work experience hours in the workplace. Typically, these students will be placed in enterprises who are willing to have them. They generally undertake work experience during semester breaks.

For on-the-job trainees, however, the training is provided in flexible formats. Students must complete modules identified in their training plans, and also undertake industry-related projects. At times they may come in for some face-to-face workshops. On-the-job training for on-the-job trainees is supported by workplace supervisors with assistance from teachers from the IT faculty. Trainees use a web-based learning pathway with RMIT staff as on-line tutors. Teachers from the IT faculty visit the trainee in the workplace (about four times during the duration of the program) to discuss the trainee's progress and to develop and conduct assessments. Discussions about learning activities are also held with the workplace supervisor. Assessments for on-the-job trainees are typically customised to the nature of the workplace. Students are also required to submit assignments for marking.

The program services IT specialists in small, medium and large businesses and in specific fields and is structured to meet the competencies and skills required by the Information Technology Training Package. Developed at the national level by the Information Technology and Telecommunications Industry Training Advisory Board, the training package contains the competencies that must be achieved and the guidelines for the assessment of these competencies in an easy-to-read-and-understand format. The major benefit of the training package is that it sets out a mechanism for achieving the competencies required by industry. Another benefit is that that the package can be readily customised to the meet the needs of existing workers and those with prior knowledge.

Nevertheless, some concerns have been identified with the training package as it now stands. Most importantly, the training package does not meet the needs of school-leavers. Although the faculty has identified a list of necessary requirements before students join certain courses or subjects, there is little to prevent students enrolling in subjects for which they do not have the required prior knowledge.

Another concern relates to the fact that there is no acknowledgment of the need for prior knowledge for some of the areas, and that the training package encourages specialisation before sufficient foundation skills have been developed.

Information technology at the Inner Melbourne VET cluster

This cluster comprises 25 schools in the inner Melbourne region. It caters for about 500 students and 13 programs. The aim of the cluster is the sharing of resources and ideas in the organisation of VET programs and the centralising and co-ordination of arrangements for work placements. Thus, small numbers of students from individual schools who would otherwise not be able to undertake VET studies in a particular area are able to join a program. Each program is delivered by a host school that makes its resources available for the delivery of the program.

The Certificate II in Multi-media program provides students with the skills and knowledge that will help them to gain employment in traditional and more recently developed including sectors of the industry, jobs in the traditional sectors of graphic design, advertising, publishing, computing, pre-press film/video/TV production, information design, visual and performing arts, and in the more recently developed sectors of multi-media design and production, interactive game development, and on-line and broadband services. Students are provided with opportunities to develop a portfolio of work and the skills necessary to obtain free-lance employment. The course also aims to prepare them for further studies in the field in universities or TAFE.

Although the State guidelines (established by the Board of Studies) do not indicate that work placements for this course are a mandatory component of the course, it has been decided that they should be compulsory. This decision was made because the cluster is located in a region which is the hub of the multimedia industry in Melbourne and work placements will enable students to hone their industry skills, and make contacts with prospective employers.

The major linkages with industry are developed by the vocational co-ordinator and the vocational teachers in the host school. These linkages are generally set up through informal networks with employers in the local area. Once employers have been contacted and agree to be part of the program they receive a kit which outlines what they are required to do once students are allocated to work placements with their companies. Employers are also involved in identifying the sorts of experiences they can provide to students. The formal linkages are only established when an employer provides a work placement to a student and as a result is closely involved in the training and assessment of a student's performance and reporting on this performance by completing the log-book and the evaluation form.

There are definite benefits of having a formal system of work placements in place for students in secondary schools. It allows them to experience first hand the nature of the industry sector and allows them to establish contacts which may benefit them in the future when they are looking for employment. Work placements in industry also allow

students to get a real sense of which companies are good to work for and are achieving success in the commercial sense.

Having teachers involved in visiting workplaces keeps them aware of industry developments and allows them to expand or update their knowledge in their particular fields. In addition, it allows them to establish contacts with particular employers and use these contacts to help them develop better learning experiences for students.

In terms of benefit to workplaces, these linkages allow them to influence the types of competencies and skills that should be developed in school-based curricula and are required for their industry sectors. As well as allowing employers to recruit potential employees, linkages also provide them with an opportunity to fulfill their own community responsibility, and raises their profile among the local community.

Funding and resourcing are critical to the continuation of these programs. In most cases the success of these programs relies on the goodwill of teachers in schools in becoming involved. If students had to access these programs through TAFE or other VET providers, then students would have to outlay substantial fees. Furthermore, there is also a danger that, while the vocational teacher in the school is teaching multi-media to students from other schools in the cluster, his responsibilities for teaching subjects in the junior school may have to be taken up by other teachers. These consequences have not been fully addressed by the Department of Education.

Obtaining adequate access to the technology and resources required for this program is also felt to be a major concern. Because this industry is developing rapidly, it is vital that students have access to the latest in software and hardware. Thus there is a constant need for equipment to be upgraded and teachers to be upskilled in its use.

Another major concern is the heavy workload placed on the vocational co-ordinator. Because 25 schools are now part of the cluster, marketing the different programs, developing infrastructure required and contacting employers and maintaining networks is a very demanding task for one person. Funding for another co-ordinator position to assist in these tasks. If this is not done, then there is the danger that many of the programs will not be as successful as they could be.

The cluster can only deliver modules that have been approved by the Board of Studies. At times this can be quite prescriptive and does not allow schools to deliver the competencies required by industry.

As has already been noted, the diversity of the industry sector means that it is difficult to provide students with comparable industry experience. To make each student's experience worthwhile, it is important for the vocational teacher to customise a work placement program for each student which delivers the competencies and provides relevant industry experience. This takes time and effort.

Discussion, conclusions and implications for policy

The aim of this study was to examine, in the context of entry-level training, the linkages which operate between secondary and post-secondary training providers and industry in three major sectors—the tourism and hospitality, electrical/electronics and information technology industries.

Overview

The Australian vocational education and training system is based on a strong connection between industry and providers which enables the identification of the competencies and standards that will guide the direction of training for entry-level training. This linkage with industry is demonstrated at a variety of levels. At the top it is manifested by the composition of the board of the Australian National Training Authority with responsibility for overseeing the development and implementation and evaluation of national training policies. At the next level the linkage is manifested by the establishment of industry training and advisory bodies with formal responsibility for establishing the training packages for their particular industries.

At the secondary school provider level, these linkages are manifested in various ways. Secondary schools providing VET-in-Schools programs themselves, or working in conjunction with a registered training organisation (usually TAFE institutes) to deliver training which will lead to vocational qualifications and credit transfer to further training must link up with industries for vocational placements. Clusters of these secondary schools can work together to pool resources and to fund the salaries of a work placement co-ordinator with responsibility for establishing industry linkages and locating placements. Where possible, these co-ordinators have established strong linkages with specific industries to provide placements on a regular basis. In other instances the co-ordinators have the task of locating ongoing placements, explaining the training that is required, and establishing guidelines for assessment and reporting. These tasks are labour-intensive and at times there is a concern that much of the work by co-ordinators and teachers of vocational programs in school is not being acknowledged by adequate funding.

In post-compulsory institutions (TAFE institutes, private providers) the linkages are generally reflected in the development and implementation of industry training packages, the composition of course advisory groups, and partnerships between employers in the delivery of apprenticeship and traineeship training. The sharing of responsibilities for the development and training of apprentices with training providers delivering the off-the-job components of the training and employers

delivering the on-the-job components of the training forms a crucial part of the linkage. In addition providers are always on the lookout for partnerships with employers to provide training for existing workers.

Post-compulsory providers have highlighted a number of concerns relating to the training package for specific areas. Generally speaking, these concerns relate to the difficulties experienced by school leavers who are following an institutional pathway and lack the workplace experience required for the development of competencies outlined in the training packages. In addition, in some industries (for example, travel and tourism) there is a concern that there is duplication or overlap between the various qualifications.

Major benefits

A number of benefits derives from the development of industry linkages for secondary and post-secondary providers. These are detailed below.

Facilitating the recognition and portability of qualifications

The most formal of the linkages between providers and industry is manifested by the collaborative development of industry training packages. Developed by industry training and advisory bodies, with input from both public and private providers, these packages have facilitated the recognition and portability of qualifications. This means that, in theory, qualifications can be transported across State boundaries and will be recognised by all providers. However, this may not always be as simple as it seems especially if some providers have certain prerequisites for courses and others do not.

Facilitating industry input for off-the-job training

The course advisory or reference groups which have been established by providers help them to maintain an industry focus in their plans for the delivery of training and assessment. In addition they help to keep industry aware of the training available and the particular concerns that providers have with the implementation of national initiatives such as training packages. This means that industry is able to influence the content of training delivered off the job in addition to the content of training delivered on the job. This is the main mechanism for ensuring that the qualifications being delivered are related to jobs and to industry needs.

Streamlining and centralising arrangements for work placements

This particular benefit relates generally to secondary schools that have combined with other schools to form a cluster, a strategy which allows them to pool their resources, share facilities and broaden the range of opportunities for students.

Typically these clusters will employ a work placement co-ordinator or manager of the cluster who is responsible for establishing networks with employers for the purpose of locating work placements and matching students to industries and enterprises. At times these co-ordinators are also responsible for establishing the program in

conjunction with vocational teachers in schools. This arrangement streamlines the vocational program and ensures that employers are only required to negotiate with one person who represents the needs of students from a range of schools. This arrangement also reduces the pressure on vocational teachers in schools for finding placements and maintaining industry networks. Work placement co-ordinators are also able to provide a consistent evaluation of the suitability and worth of placements with certain organisations.

Developing student skills and awareness of suitable occupations and organisations

The benefits to students in having an effective system for locating work placements and matching students to enterprises are many. Most importantly, they are provided with opportunities to develop work skills in a realistic work environment and to adopt the work habits required in the modern workplace. In addition, they are able to experience first hand what it is like to work in a particular occupation and to decide whether or not they are suited to the occupation, with time enough to change direction if necessary. Should they decide that the occupation is one they want to follow then the work placement will help them to develop contacts with possible employers and become aware of the organisations that are successful in the business.

Improving the public image for employers

By having a close involvement with providers in the provision of on-the-job training opportunities for students, employers also stand to benefit in a variety of ways. Providing opportunities to develop work-ready students means that they are able to evaluate students in terms of future recruits for the company. In addition, being involved in providing expertise and facilities for the use of training also helps to improve their public image.

Improving teacher awareness of industry developments

Having teachers involved in programs which include workplace training and assessment and requires close liaison with employers and regular visits to industry, also has benefits for providers in terms of professional development for teachers. It increases teacher awareness of the issues important to employers, and helps teachers update their expertise in their chosen fields. Teacher visits to industry also help them to develop networks with employers and to use these contacts to help them ensure better learning experiences and skill development for their students.

Return-to-industry programs, involvement in commercial activities related to their field, and networks with employers also help teachers to update their knowledge and expertise and to maintain the currency of their skills.

Concerns

Although the benefits derived from healthy linkages between providers and industry outweigh the difficulties, there are also a number of concerns.

Training packages provide some difficulties for students and trainees

Although training packages are felt to provide a coherent and standardised approach to the identification of the competencies and standards required for qualifications, they have generated a number of concerns especially at the post-compulsory level of training. There is a general belief among providers of travel and tourism, information technology and electronics in this study, that the competencies outlined in the training packages provide some limitations for training. It is their opinion that these competencies are more suitable for the training of existing workers and apprentices and trainees rather than for school leavers who are not in jobs or undertaking an apprenticeship or traineeships. This is believed to be so because these school leavers have limited knowledge of the particular industry gained through work.

Specialisation before foundation

In areas such as information technology there is a concern that the training package has encouraged specialisation before the student has developed the comprehensive knowledge which is fundamental to the specialisation concerned. Although it is acknowledged that the training package has been made flexible to accommodate the needs of industry at a particular time, there is a view that this is not an effective way to go about skill development.

Customisation may limit transfer

There is always a difficulty in ensuring that skills delivered in entry-level training are the types of skills required by industry. This was one of the driving forces for making the training packages less prescriptive and more flexible than the national curricula which preceded them. However, there is some concern that the flexibility available to enterprises through the training packages may limit the development of a comprehensive set of skills or underpinning knowledge which will help to build expertise that can be transferred to different workplaces.

This concern is especially evident in the case of on-the-job trainees who acquire the great majority of their off- and on-the-job training at the workplace. Because the training program is based on modules negotiated between training providers and employers and in some cases with input from trainees, there is the risk that the trainees may learn only a narrow range of skills, resulting in their not being exposed to skills or knowledge particularly relevant to their chosen occupations but not practised in the workplace in which they are employed.

Policy implications

A number of policy implications and associated recommendations are derived from findings from case studies which describe the linkages between providers and industry. These are described below.

Continuing and expanding the funds available for school industry programs

Access to adequate funding for establishing school–industry programs and developing and maintaining networks with industry continues to be a major concern for those responsible for implementing these programs. There is a need to ensure that schools have access to adequate equipment (software, space, computers etc) to allow students to practice the skills required for the workplace. This is especially the case for students undertaking training in areas which require access to a variety of new technologies. In addition, it is important to ensure that there is adequate funding to support the work of vocational placement co-ordinators and vocational teachers in schools since significant additional work is required if programs are viable and effective.

In view of these concerns it would make good sense to review funding allocation processes to ensure that funds allocated to programs will better match the responsibilities undertaken in the different programs.

Encouraging industry to support linkages in active ways

Findings from these case studies show that employers respond in positive ways to providing workplace learning opportunities for students from secondary schools. However these opportunities are generally provided in response to requests from co-ordinators of school–industry programs or teachers in schools. In this study there was one example where industry itself behaved in a pro-active manner to establish a business adviser responsible for providing information to employers on how they could participate in school–industry programs. In another case employers have set up school–industry partnerships which involve their own employees mentoring students in secondary schools. These types of initiatives can only strengthen the linkages between training providers at all levels and should be encouraged.

Reviewing training packages to meet the needs of students in institutional pathways

In the area of travel and tourism, information technology and electronics the limitations of training packages for students undertaking institutional pathways is a recurring theme in discussions with TAFE training providers. There is a general consensus that the competencies in place are more appropriate to the needs of existing workers and apprentices and trainees than for students who are following an institutional pathway and have had little or no experience in the workplace.

In view of these findings it is recommended that, in their review of training packages, ITABs keep these concerns in mind. It is also suggested that strategies be developed to enable school leavers on institutional paths to develop the knowledge required before the competencies outlined in the training package are attempted.

Simplifying qualifications for travel and tourism

There is a view by providers that there is considerable overlap in the qualifications depicted in the tourism training package. In view of these findings it is suggested that, in their review of training packages, the relevant ITAB consider the qualifications available under the Tourism Training Package and streamline the number of qualifications to avoid this overlap.

Training for transfer

Training providers are continually evaluating the opportunities for learning and practising occupational skills through employment and a combination of on- and off-the-job training available to apprentices and trainees under their care. They are also concerned about providing skills which are transferable between workplaces.

To this end training providers are aware that the quality and range of skills practised in the workplace is dependent on the nature of the establishment in which the apprentice is located. For this reason that they want to protect the rigour of their off-the-job training programs. In commercial cookery there is a concern that the reduction of hours in the current training package means a restriction in the type, range and currency of skills available to apprentices and trainees. Although there is nothing to stop providers from including what they believe to be essential skills into their training programs as long as they are delivering the competencies outlined in the training package, this extra activity does not attract funding. As a result, some of the areas considered by providers to be essential to the development of an expert chef are not provided because of lack of funding.

In view of these findings it is suggested that reviews of training packages consider these issues and implement strategies which will allow training in skills and knowledge considered to be of benefit to the apprentice or trainee both in their current and in their future workplaces. Apprentices, trainees and students must be provided with a suite of transferable skills that will enable them to develop real expertise in their chosen fields.

Concluding remarks

The findings of this study indicate that the nurturing of linkages between training providers and industry is essential to the provision of adequate and relevant skill development. However, they also highlight a number of concerns that need to be addressed to ensure that the maximum benefits from provider and industry linkages can be realised.

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